

Factory Information System

eXtensible Markup Language XML

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Defined XSD Structure	Error!
Bookmark	not defined.
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OBJECTIVE

The objective of this development was to build a web interface that allows users to upload xml file to validate the XML against XSD schema file.

How to Run the application

- Download and install the latest NodeJS. If NodeJS is already installed, continue from step 2.
- Download the files in a directory
- Run command prompt(cmd) from that directory
- In cmd, write 'npm install' and press enter to install all the dependencies
- In cmd, write "node server.js" and press enter to run the server
- Once server is running, go to <http://localhost:8081> to upload and validate xml files

The schema files must be kept in the folder named schema. If no schema file name is mentioned in the xml file, it uses a default schema file called "order_details"

Design of the Application

The application was built using NodeJS. The objective of the NodeJS based app was to accept a xml file through a web client which the server validates against the specified schema file and then conveys the result back to the web client.

There were three main packages used to build this app: **express**, **multer** and **xsd-schema-validator**. Express was used to easily build the client web interface. Multer was used to handle and store file upload. xsd-schema-validator was used to validate the uploaded xml file against the specified xsd schema file.

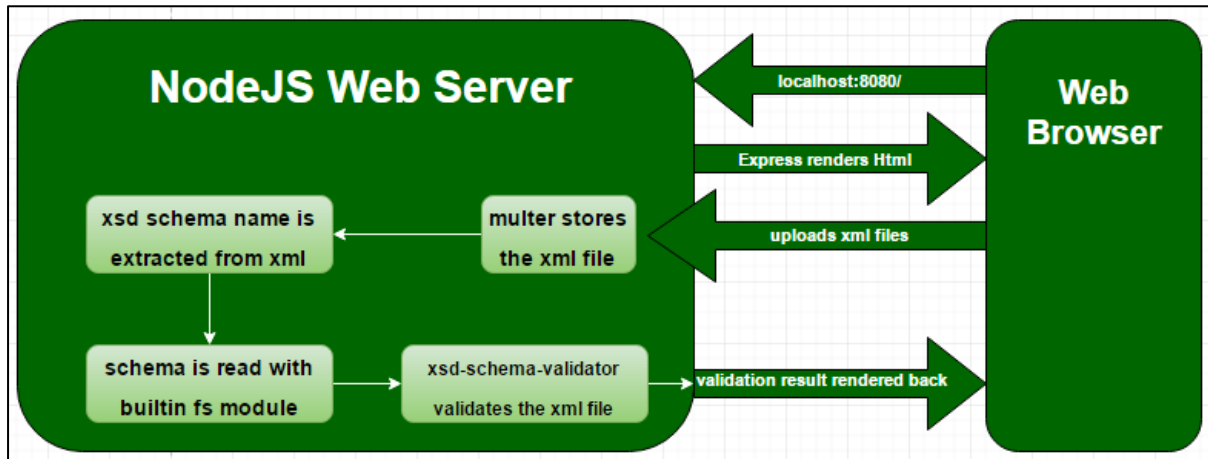


Figure 1: Application Architecture & Program Flow

Package xml-parser was used briefly to parse the xml file into a javascript object to find the name of the schema file inside the xml file. Later, this package was uninstalled because this package has 51 dependencies. Instead only 13 lines of code was added that can find the name of the schema file inside the xml file. The package xml-parser would be very useful for implementing further complex tasks with the xml file content but for only finding the name of the schema file, it seemed to have too high overhead.